Appl. No. 10/678,663 Amdt. dated December 21, 2006 Reply to Office Action of June 22, 2006

## **REMARKS/ARGUMENTS**

With entry of the present Amendment, claims 20-41 are pending in the above-referenced patent application and are currently under examination. In the Office Action, there is only a single rejection. Claims 22-41 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Low *et al.* (U.S. Patent No. 3,671,497). For the reasons set forth below, this rejection is overcome.

Applicants acknowledge, with appreciation, the Examiner's indication that claims 20-32 are allowed (*see*, page 3 of the Office Action).

## Rejection Under 35 U.S.C. § 103(a)

Claims 33-41 were rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Low *et al.* (U.S. Patent No. 3,671,497). In making this rejection, the Office Action states:

Low *et al.* US 3,671,497 teach a process for making highly fluorinated polyurethanes from prepolymer isocyanates such as toluene diisocyanate, a cross linking agent such as low molecular weight poly amines, e.g. phenylene diamines, a catalyst and a solvent. See, for example, column 1 lines 65-75, column 2 lines 3-6, 15, 39-44, 72, column 4, lines 46-48.

See, page 2 of the Office Action. Based on these teachings, the Office Action alleges that "[w]hile the claimed [components] are not specifically disclosed in the art, they do overlap with the art's disclosure. . . .[t]his overlap is sufficient to render the process obvious, as it is not necessary for the art to be identical to the claimed process in every detail, but only close enough to the claimed process to lead one of skill thereto" (see, page 3 of the Office Action). For the reasons set forth below, Applicants respectfully disagree.

As set forth in M.P.E.P. § 2143, to establish a *prima facie* case of obviousness, three basic criteria must be met.

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the

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prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

All three elements set forth above must be present in order to establish a *prima* facie case of obviousness. For the reasons set forth below, Applicants respectfully submit that Low et al. do not teach or suggest all of the claim limitations.

More particularly, independent claim 33 of the present case recites:

- 33. A method of making a fluorinated thermoset polyurethane elastomer, comprising the steps of:
- a) mixing a prepolymer with an isocyanate, a cross-linking agent, a catalyst and a solvent to form a reaction mixture, wherein the prepolymer is produced from a monomer selected from the group consisting of FOX (Fluorinated OXetane) and FOX/THF (tetrahydrofuran); and
- b) curing the reaction mixture to form the thermoset polyurethane elastomer.

A perusal of the Low et al. patent reveals that it teaches the preparation of a polyurethane by reacting a diol product with a suitable diisocyanate (see, claims 1-4, column 2, lines 1-6 and lines 37-55. However, the Low et al. patent does not teach the preparation of a fluorinated thermoset polyurethane elastomer. More particularly, it does not teach reacting a prepolyer (e.g., a diol) with an isocyanate and a cross-linking agent and a catalyst and a solvent to form a reaction mixture which is then cured to form the thermoset polyurethane elastomer. In fact, a review of the Low et al. patent reveals that it does not teach, suggest or even mention a cross-linking agent, such as a polyol or a polyamine. In addition, although the Low et al. patent mentions the use of a catalyst, it does so in connection the formation of the acid fluoride terminated precursors, which involves the reaction of hexafluoropropylene oxide with perfluoroglutaryl fluoride in the presence of a catalyst, i.e., cesium fluoride, and a suitable solvent (see, column 2, lines 11-20). Thus, although the Low et al. patent discloses a method for the preparation of a polyurethane, it does not teach or suggest a method for the preparation of a fluorinated thermoset polyurethane elastomer, which involves mixing a FOX prepolymer with an isocyanate and a cross-linking agent and a catalyst and a solvent to form a reaction mixture, and then curing the reaction mixture to form the thermoset polyurethane elastomer.

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For the reasons set forth above, Applicants respectfully submit that the Low *et al.* patent does not teach or suggest the method recited in claims 33-41 because it does not teach or suggest a method for the preparation of a fluorinated thermoset polyurethane elastomer. Absent such a teaching or suggestion, the presently claimed method is non-obvious and, thus, patentable. Accordingly, Applicants respectfully request that the §103 rejection of claims 33-41 be withdrawn and that claims 33-41 be allowed together with claims 22-32.

## **CONCLUSION**

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 925-472-5000.

Respectfully submitted

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